Amendments to the Claims

1 (currently amended). A method of preparing a flexible polyurethane foam comprising bringing an organic polyisocyanate into contact with a polyol composition containing a high equivalent weight polyol or mixture of high equivalent weight polyols, in the presence of a blowing agent that includes water, and a surfactant, under conditions such that the polyisocyanate reacts with the polyol composition and the blowing agent produces a gas, to form a cellular polyurethane and/or polyurea polymer, wherein at least 10% by weight of the high equivalent weight polyol(s) is one or more hydroxymethyl-containing polyester polyols prepared by reacting a hydroxymethyl group-containing fatty acid having from 12-26 carbon atoms, or an ester of such a hydroxymethyl group containing fatty acid, with a polyol or polyamine initiator compound having an average of at least 2 hydroxyl, primary amine and/or secondary amine groups, such that the hydroxymethyl-containing polyester polyol contains an average of at least 1.3 repeating units derived from the hydroxmethyl-group-containing fatty acid or ester per total number of hydroxyl, primary amine and secondary amine groups in the initiator compound, and the hydroxymethyl-containing polyester polyol has an equivalent weight of at least 650 up to 15,000, and further wherein the hydroxymethyl-containing polyester polyol has following average structure:

$$\left[\mathrm{H}\text{—}\mathrm{X}\right]_{(n-p)}\text{—}\mathrm{R}\text{—}\left[\mathrm{X}\text{—}\mathrm{Z}\right]_{p}$$

wherein R is the residue of a polyether polyol initiator compound having n hydroxyl groups, where n is at least two; each X is independently —O—, —NH— or —NR'— in which R' is an inertly substituted alkyl, aryl, cycloalkyl, or aralkyl group, p is a number from 1 to n representing the average number of [X—Z] groups per hydroxymethyl-containing polyester polyol molecule, Z is a linear or branched chain containing one or more A groups, provided that the average number of A groups per molecule is ≥ 1.3 times n, and the A groups ~~are a mixture of~~ include A1, A2, A3~~,~~ and A4 groups and optionally A5 groups ~~that contains~~ wherein the A1 groups constitute from 20 to 50 mole percent ~~A1~~ of the A groups, the A2

groups constitute from 1 to 65 mole percent ~~A2~~ of the A groups, the A3 groups constitute from 0.1 to 10 mole percent ~~A3~~ of the A groups, the A4 groups constitute up to 30 mole percent ~~A4~~ of the A groups and the A5 groups constitute up to 7 mole percent of ~~A5~~ of the A groups, ~~which mixture contains~~ and the A groups contain an average of from 0.95 to 1.2 $-CH_2O-$ groups/A group, wherein A1 is:

$$-\overset{\overset{\displaystyle O}{\|}}{C}-(CH_2)_m-\underset{\underset{\displaystyle (CH_2)_nCH_3}{|}}{CH}-CH_2-OB \qquad \text{(II)}$$

wherein B is H or a covalent bond to a carbonyl carbon atom of another A group; m is number greater than 3, n is greater than or equal to zero and m + n is from 11 to 19; A2 is:

$$-\overset{\overset{\displaystyle O}{\|}}{C}-(CH_2)_v-\overset{\overset{\displaystyle CH_2OB}{|}}{CH}-(CH_2)_r-\underset{\underset{\displaystyle (CH_2)_sCH_3}{|}}{CH}-CH_2-OB \qquad \text{(III)}$$

wherein B is as before, v is a number greater than 3, r and s are each numbers greater than or equal to zero with v + r + s being from 10 to 18, A3 is:

$$-\overset{\overset{\displaystyle O}{\|}}{C}-(CH_2)_v-\underset{\underset{\displaystyle CH_2OB}{|}}{\overset{\overset{\displaystyle CH_2OB}{|}}{CH}}-(CH_2)_r-\underset{\underset{\displaystyle (CH_2)_sCH_3}{|}}{CH}-(CH_2)_t-CHCH_2OB \qquad \text{(IV)}$$

wherein B, v, each r and s are as defined before, t is a number greater than or equal to zero, and the sum of v, r, s and t is from 10 to 18; A4 is

$$-\overset{\overset{\displaystyle O}{\|}}{C}-(CH_2)_w-CH_3 \qquad \text{(V)}$$

where w is from 10-24, and A5 is

$$-\overset{\overset{\displaystyle O}{\|}}{C}-R' \qquad \text{(VI)}$$

where R' is a linear or branched alkyl group that is substituted with at least one cyclic ether group and optionally one or more hydroxyl groups or other ether groups.

2 (original). The method of claim 1, wherein the equivalent weight of the hydroxymethyl-containing polyester polyol is from about 700 to about 3500.

3 (original). The method of claim 2, wherein the hydroxymethyl-containing polyester polyol contains an average of about 2.5 to about 5 hydroxyl, primary amine or secondary amine groups per molecule.

4 (original). The method of claim 3, which is a free-rise process to produce slabstock polyurethane foam.

5 (original). The method of claim 4, wherein the hydroxymethyl-containing polyester polyol constitutes about 35-100% by weight of the high equivalent weight polyol(s).

6 (original). The method of claim 5, wherein the polyurethane foam has a density of about 1.2 to about 2.0 pounds per cubic foot.

7-8 (canceled).

9 (previously presented). The method of claim 6, wherein the hydroxymethyl-containing polyester polyol constitutes about 80-100% by weight of the high equivalent weight polyol(s).

10 (original). The method of claim 9, wherein the surfactant is represented by the formula $MD_xD'_yM$, wherein
each M is independently $(CH_3)_3SiO_{1/2}$ or $R(CH_3)_2SiO_{1/2}$;
D is $(CH_3)_2SiO_{1/2}$;
D' is $R(CH_3)SiO_{2/2}$;
x is 40-220, y is 5-40, x/y<10; and
each R is independently a high atomic mass polyether group or a low atomic mass polyether group, provided that a sufficient number of R groups are high atomic mass polyether groups

that the average atomic mass of all polyether groups is at least 1000, especially at least 1100.

11 (original). The method of claim 3, which is a free-rise process to produce high resiliency slabstock polyurethane foam.

12 (original). The method of claim 11, wherein the hydroxymethyl-containing polyester polyol constitutes about 35-100% by weight of the high equivalent weight polyol(s).

13-14 (canceled).

15 (previously presented). The method of claim 12, wherein the foam has a density of about 2.0 to about 5 pounds per cubic foot.

16 (original). The method of claim 15, wherein the equivalent weight of the hydroxymethyl-containing polyester polyol is from about 700 to about 1000.

17 (original). The method of claim 16, wherein the surfactant contains up to about 20 siloxane units per molecule and contain about one pendant polyether group per every 3-8 siloxane units, wherein the pendant polyether groups are preferably polymers of ethylene oxide, propylene oxide or a mixture of ethylene oxide and propylene oxide that have an average atomic mass of about 200-1000 daltons.

18 (original). The method of claim 17, which is conducted in the absence of an organotin catalyst.

19 (original). The method of claim 16, wherein the hydroxymethyl-containing polyester polyol constitutes about 35-65% of the total weight of the high equivalent weight polyol(s).

20 (original). The method of claim 3 wherein the polyol composition and the polyisocyanate composition react within a closed mold.

21(original). The method of claim 20, wherein the hydroxymethyl-containing polyester polyol constitutes about 10-50% of the total weight of the high equivalent weight polyol(s).

22-23 (canceled).

24 (previously presented). The process of claim 21 which is a hot-molding process.

25 (previously presented). The process of claim 21 which is a cold-molding process.

26 (original). A polyurethane foam made in the method of claim 1.

27 (original). A polyurethane foam made in the method of claim 4.

28 (canceled).

29 (original). A polyurethane foam made in the method of claim 9.

30 (original). A polyurethane foam made in the method of claim 10.

31 (original). A polyurethane foam made in the method of claim 11.

32 (canceled).

33 (original). A polyurethane foam made in the method of claim 17.

34 (original). A polyurethane foam made in the method of claim 20.

35 (canceled).

36 (previously presented). The method of claim 1 wherein R is the residue of a polymer of ethylene oxide, propylene oxide or ethylene oxide and propylene oxide.

37 (previously presented). The method of claim 36 where R is the residue of a polymer of ethylene oxide, propylene oxide or ethylene oxide and propylene oxide having from 2 to 8 hydroxyl groups per molecule and a molecular weight of about 150 to 3000.

38 (previously prevented). The method of claim 37 wherein R is the residue of a polymer of ethylene oxide having from 2 to 8 hydroxyl groups per molecule and a molecular weight of about 150 to 3000.

39 (new). The method of claim 1 wherein the A1 groups constitute from 20 to 50 mole percent of the A groups, the A2 groups constitute from 20 to 50 mole percent of the A groups, the A3 groups constitute from 0.5 to 4 mole percent of the A groups, the A4 groups constitute from 15 to 30 mole percent of the A groups and the A5 groups constitute up to 5 mole percent of the A groups.